The craft of scalar practices

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Abstract: Despite recent controversies over the ontological status of scale, geographers have continued to interrogate so-called 'scalar practices'. But not enough has been said about the skill involved in making these practices successful. Geographers have overlooked the potential for thinking through the craft of scalar practices. I therefore introduce 'scalecraft', a concept which builds upon existing work and is intended to draw attention to and elaborate upon the skills, aptitudes, and experiences at issue in working with scale. A relatively diverse set of secondary materials selected from recent academic literature is used first to demonstrate how scalar practices entail failures, learning, complex machinations, and innovations. I then use materials from my own research in

South Africa into white farmers' practices which fashion an organic scale of action amidst a space-time of uncertainty and insecurity.

Introduction

As is well known, "traditional Euclidian, Cartesian and Westphalian notions of geographical scale as a fixed, bounded, self-enclosed and pregiven container" (Brenner, 2001, page 592) have been challenged and largely replaced by work that examines how scale is actively (re)constructed, contested, and is, hence, fundamentally political (eg, Brenner, 1998; 2001; Cox, 1998; Jonas, 1994; Marston, 2000; Swyngedouw, 2000). This literature on the 'politics of scale' has been to a large extent inspired by developments such as 'globalization', the rise of subnationalist regionalisms, devolution, economic crises afflicting national welfare state systems, or new developments within capitalist societies leading to increased interurban competition. A wide range of research agendas have thus emerged to capture and theorize the 'scalarity' of sociospatial life.

Geographers' shift from a taken-for-granted, fixed, and stable understanding of scale to a new and much more exciting set of conceptualizations has yielded numerous benefits. One development is the notion that actors engage in scalar practices. Such practices include state-driven attempts to rescale governance; examples of actors using scalar discourses about the local or the global; or cases

of social movement activism which deliberate over and target particular scales of action. Human actors-whether individuals, social groups, or governing bodies (such as governments or state agencies)-'produce' and 'use' scale in all manner of attempts to create some sort of advantage, to establish associations, connections, or solidarities across social divides, or to represent their interests (to be heard or seen) amidst oppressive or otherwise difficult conditions.

Surprisingly, however, and although a wide range of scalar practices are now fundamentally at issue in human geography, not enough attention has been given to questions about the success or failure of these practices. Does working with scale, such as deploying a scalar discourse, or establishing a new institution which nestles within a scalar hierarchy, require skill? And if there is skill involved in the production process, is there scope to identify and elaborate upon the craft at issue?

This paper blends primary and secondary materials regarding sometimes skilful and at other times failing scalar practices to demonstrate how social actors practise what I refer to as 'scalecraft'-a concept which draws attention to the aptitude, skill, and experience embedded within (yet poorly elaborated upon in geographers' discussions of) scalar practices. I argue that scalecraft focuses attention on and places value in understanding when scalar practices fail, not just

when they succeed, and why. In turn, new sets of questions emerge: for example, about the political significance of practising scale (in)effectively, or about how geographically uneven development interrupts scalecraft. My contribution aims to build on the current literature on scale towards developing a strengthened understanding of scalar practices.

The rest of the paper is divided into four sections. I elaborate on the concept of scalecraft in the next section. I explain in more detail why the concept has mileage and precisely what its benefits are for sociospatial thinking in general and scale theorists in particular. Then, in a fairly long discussion, I introduce a range of examples which highlight the craft of scalar practices. The cases to which I call attention entail diverse and complex practices of "skilfully fashioning" [a phrase I borrow from Clifford (1986, page 6)] geographic scale. The basic point is to demonstrate that, if we view scale as a social product, then we need to consider the craft that can be involved. My argument would not be complete, however, without some qualifications. In the third section of the paper, then, I use some primary materials from research I have conducted in South Africa. Specifically, I introduce the case of white farmers who have responded to the threat of violent 'farm attacks' by crafting an organic scale of action which entails volunteer patrols at night. I use these materials to demonstrate a key point: that the craft of practising scale is only ever a partial solution to social problems,

precisely because of the "throwntogetherness" (Massey, 2005) of place and space. Finally, in the concluding section, I look beyond the specific materials presented here to identify some broader implications of thinking about the craft of scalar practices.

From 'scalar practices' to 'scalecraft'

The intellectual biography of scale in geography is impressive. It has matured from a stable, bounded, taken-for-granted notion to its current state as a fundamentally contested, complex, but yet central, concept in the discipline. Much of the intellectual effort up till now has gone into contributing to that maturing process. As such, a series of critical points have been made about the concept. One is that scale is a social product: that it is human actors in their relations with each other that produce understandings of local and global, say; or that scales of governance are products of the social process. Subsequent contributions have developed the initial points about the social production of scale. We now agree, for example, that it matters if agents rescale social life, deploy scalar discourses, or jump scales. Geographers, in short, have demonstrated that scalarity is central to the unfolding of sociospatial processes. Most (if not all) contributors to the scale literature recognize that working with, or producing, scale is a political act and hence is tricky, messy, and awkward. Scalar practices are not straightforward: rather, they entail complexities,

difficulties, and skill. Glassman (2002), for example, has traced some of the intricacies involved in Thai activists' efforts to 'jump scale' and to access and use international policy communities to apply pressure on the nation-state. 'Jumping' to meet up with power requires skill and luck. 'Rescaling', such as attempts to transform political struggles, is another scalar practice that is far from straightforward. Harvey (1996), for example, makes this point when he discusses the difficulties of extending and so rescaling the political possibilities of all the world's different militant particularisms, which is necessary, he says, "if socialism is to break out of its local bonds and become a viable alternative to capitalism as a working mode of production and social relations" (page 23). The difficulty is making the move from understanding the dynamics of struggle in one place to struggle generally, and understanding, too, the principles that can guide action at those two different scales. Producing a global scale of action is far from easy.

More generally, a scalar fix or structuration, as Brenner (2001) notes, "hinges crucially upon its embeddedness within dense webs of relations to other scales and spaces" (page 606), which thereby alerts us to the range of negotiations and difficulties of chance occurrences that affect how scalar practices are played out. Beyond theorizing how scalar practices involve difficulties and complexities, the scale literature in geography also draws attention to the importance of effectiveness. Consider here that, as political geographers have been at pains to

demonstrate, some appeals to the 'global' or the 'local', or attempts to defend or promote the 'region', do not meet their objectives (eg Agnew, 1995). Or consider that corporate giants, free-trade extremists, and agitating governments might seek out massive, highly complex entities to govern and organize world trade; but, as the recent Doha round of WTO talks has demonstrated, such attempts can falter.

Third, there is the case of Fiat's mission to globalize its activities and take advantage of neoliberal reforms in 'emerging markets', which failed to live up to expectations and contributed to a process of considerable corporate restructuring (Dunford, 2009). Scalar practices do not always succeed. In this light, Moore (2008) suggests that we "conceptualize scaleness as a contingent event that may or may not occur. Alert to the fact that scale-making projects may fail to produce high degrees of scaleness we can begin to explore failed attempts" (page 219). My aim in this paper is to build on geographers' work on the complexities and intricacies of scalar practices in general, and then on Moore's proposition in particular, by suggesting that our theorizations of scale need to take into account more fully the skills, aptitudes, and experiences involved in producing, working with, or exploiting geographic scale. The problem with which I seek to grapple is not so much that geographers have failed to take into consideration difficulties or struggles or failures, but rather that the scale literature has not dwelled enough on the skill at work in scalar practices.

My approach is to conceive and call for a deeper understanding of 'scalecraft', which I understand as the craft of scalar practices. I use the term 'craft' here in a similar way to Sennett (2008) in his fascinating historical study of the craft worker. The craft worker almost seems a thing of the past now, particularly in the light of developments in the capitalist labour process which increasingly make craft work redundant. But, although Taylorism has stripped down, simplified, and deskilled the labour process (Braverman, 1974), craft still occurs initially in production processes and so craft persists and still matters. And at issue in thinking about craft work are the workshops in which it develops, as well as the "hesitations and mistakes" (Sennett, 2008, page 116), even the willingness to commit errors, make repairs, and develop improvements. All these features of craft work apply to scalar practices, as I aim to discuss in this paper.

I argue that thinking about scalecraft helps us avoid the risk that, as we move beyond the once-radical step of imagining scale as a social product, we begin to take for granted and hence downplay the complexities of that idea. The term 'the social production of scale' must not be understood as implying a straightforward process of production devoid of difficulties, redesigns, alterations, and re-conceptualizations. Things are rarely easily produced. As Latour has noted, "Chemists, rocket scientists, and physicists are used to seeing their laboratories

explode" (2005, page 99). In other words, failure has to be accepted and expected in any production process. Initially, then, my introduction of the scalecraft concept is only a re-characterization of existing and widely recognized points about scale: my aim is to communicate that geographers need to be cognisant of, and sensitive to, the difficulties and complexities of working with and negotiating geographic scale to meet social needs.

I suggest that scalecraft alerts us to the skill and artisanal dimension of scalar practices, such as jumping scale, rescaling, or the practice of maintaining the effectiveness of a social movement's operations at multiple scales (eg see Bosco, 2001). Scalecraft focuses on the skills in negotiating spaces of engagement, which occur when the threat of falling profits, say, leads a capitalist firm in the US to 'upscale' and seek federal support (eg Cox, 1998), or when a region or state in Europe tries to 'rescale' its territory to seek structural funds from the European Union (eg Boyle, 2000). I argue that scalecraft draws our attention to actors' skills and agency amidst the structures of opportunity and constraint that constitute the politics of scale, which involves questions of governance and the scale division of the state.

The concept is analogous to-but in key respects different from-statecraft, which is the craft that states practice when they act politically, for example, in diplomacy

with other states. Statecraft also draws our attention to the skill and propensity for failure embedded within territorial action. Crucially, however, scalecraft is not the preserve of elites, rulers, or governments. Rather, and as I demonstrate at numerous stages in the following discussion, scalecraft can be a 'bottom-up' affair. The concept is useful, then, insofar as it is explicitly about broadening the imagined range of actors that are active in the politics of scale.

Finally, I find the concept useful in the light of the fluid theoretical landscape wrought by the 'flat ontology' thesis (Marston et al, 2005). A crucial part of the flat ontology thesis is the claim that the political and intellectual benefits of thinking about scale are miniscule relative to the costs (such as, for political movements), of viewing scales as nested within a rigid hierarchy. Indeed, political mobilization amidst an imagined scalar hierarchy can be disempowering for 'local' or other scale-specific political movements, especially if the 'higher up' scales seem all powerful. But rather than pursuing hybrid or nonhierarchical notions of scale, Marston et al's 'antiscale' (Jonas, 2006) innovation has been to imagine a world without scale. The proposal is a flat ontology, which means abandoning human geography's "golden egg" (Hoefle, 2006). My view is that abandoning scale is impossible so long as people continue to imagine and talk about and operate as if scales such as local, regional, or global exist [this is the 'narrative' argument for retaining scale laid out by Jonas (2006)]. But abandoning

scale also is impossible so long as institutions, associations, or groups exist to govern and manage and oversee, or to assemble and arrange, actors or information within specific borders or territories. The issue for human geography is not, therefore, just "what people do with scale categories" (Moore, 2008, page 217, emphasis added), but also what scale-specific entities do, why, and with what (social, economic, political) consequences. There are scalar discourses and specific entities with scale-specific properties for us to study. And numerous actors, even at the microscale (eg see Ettlinger, 2007b), practise scale. Insofar as scalecraft calls attention to the skills involved in such practices, I argue that it reaffirms the need for human geographers to persist with, not abandon, scale. As

I demonstrate in the following discussion, paying attention to the craft of scalar practices alerts us to important questions about the way actors intervene in and produce spatiality.

Places of learning, experiencing, and practising scalecraft

Becoming a craft worker requires a place to practise, and entails learning, the freedom to make adaptations and improvements, and the capacity to repair. It is about more than skill alone. The idea that scale is produced suggests there might be some craft involved and, indeed, there is evidence to support that claim, given that we can discern places in which scalecraft is practised-the workshops-and in

which failures can occur. Consider here the case of Franco's transformation of the hydraulic environment in Spain (Swyngedouw, 2007). Franco's 'hydro-social dream' entailed scalar practices that sought to transform Spain's environment and achieve nationalist homogenization. Constructing Spain's new nature required a network of inter-river-basin water transfers which, crucially, demanded, "the up-scaling of the management and planning of water resources from the scale of the river basin to the national scale, national integration, a centralized hydraulic administration and a strong national state that had centralized and absolute power over the waters of the country" (Swyngedouw, 2007, page 12). Spain's new hydrological world sought purposively to diminish the influence of actors at other geographic scales, particularly the regional Confederations (pages 12-13); that is, rescaling water was intended to undermine regionalist and autonomist desires and demands. Franco's project also sat beside efforts to attract support at other geographical scales, such as by rescaling Spain's 'network of interests' via signing the Pact of Madrid with the US in 1953, after which US funds enabled dam construction to expand rapidly (page 23). Franco's venture of rescaling the politics of water within Spain, whilst also rescaling Spain's position within international geopolitics, delivered the technonatural revolution. It was a creative and imaginative project that required quite skilful efforts to establish and manage successfully (at times, conflictive) relations with actors at multiple scales. Yet part of the project failed. Franco's political agenda did not live on after his death.

And although controlling water is an attempt to concretise the nation's power, regionalist and autonomist pressures have proved to be far more resilient. Thus Franco's ambition was to rescale water management within a specific territory: Spain, his scalar workshop. His ambitions failed. But this is, I argue, as much as we should expect with the craft of working with scale.

Given that failures occur, then, those who establish institutions or governance structures within and over a specific territory must engage in an ongoing learning process. Attention to colonial settings can provide useful lessons about the ways in which scalecraft is learned via attempts to govern, to dominate and to subject. A good example here is from modern East Asian history. Henry (2005) uses Japanese popular ethnographies on colonial Korea to discuss how colonial systems targeted Korean bodies in urban areas and disciplined them into following specific hygienic practices. The colonizer's ethnographies constructed cultural differences between Japanese and Korean around sanitary practices; differences which supposedly pivoted on the notion of a "sanitarily advanced Japan and a purportedly hygienically backward Korea" (page 649). Whereas the Japanese colonizer used 'Western' toilets and defecated using sanitary practices, the ethnographies claimed that Korean customs lacked any care for cleanliness: the people "carelessly dispos[e] of their human waste in the city's waterways" and contribute to the "foul smell of human and animal feces, which were supposedly

strewn all over the city's streets" (Henry, 2005, page 651). In imagining Korea as a "shit country" and Seoul as its "shit capital" (page 651), the "imperial representations of urban filth" told by colonial ethnographies "opened up a space for further Japanese interventions in the form of colonial projects", especially "sanitizing projects that might serve both to clean up the city and bring Japan profit" (page 653, my emphasis). Thus, the Japanese colonial rulers rolled out a "draconian system of sanitary reforms", in which a new scale of urban governance-the Seoul Sanitation Association (SSA)-was charged with "disposing human excrement, collecting garbage, and dredging ditches for sewerage" (page 656). Seoulites were expected to pay the SSA's sanitation fee, a price many could not afford, thereby leading to some waste remaining uncollected. Whereas human waste was collected everyday by fertilizer merchants prior to the colonial era, "Japanese sanitation companies come around to collect once every ten or twenty days, [so] shit piles up like mounds in and around people's houses" (cited by Henry, 2005, page 656). Thus, after losing access to the human-waste economy, Korean fertilizer merchants suffered financial losses and Korean farmers were forced to pay much more than they had become accustomed for their manure supply-an outcome which deepened the conditions of colonial subjugation and helped pave the way for further settlement by Japanese farmers.

Crucially, however, none of these colonial attempts to govern Seoul were completely successful. Colonial subjects resisted the SSA and Japanese domination in other realms of life, such as public bathrooms. Beyond collecting waste, the SSA installed and monitored public bathrooms and toilets; it also established neighbourhood sanitation cooperatives, organized personal hygiene lectures and slide shows, and even forced police-led house cleanings on Koreans. Such attempts to discipline and regulate the colonial subject went in tandem with narratives and representations that justified further Japanese interventions-within the city and across Korea as a whole-and which sought to embolden the more global Japanese colonial project: the Korean other was to become civilized thanks to the superior Japanese colonizer. Thus, whilst Japan's imperial project entailed looking down at and taking into account conditions across all colonized spaces (that is, its geographic scale was larger and wider than, say, the city of Seoul alone), it also necessarily entailed directing policies and projects at governing individual bodies, situated within particular places, which required disciplining practices wrapped up with interventions at wider geographic scales (the SSA, for instance): achieving empire at one scale hinged (at least in part) on altering practices at the scale of the body; and controlling colonial subjects' bodies entailed creating institutions that would operate across the scale of the city. The project of incorporating Koreans "into the fold of colonial modernity" (Henry, 2005, page 642) required top-down, site-specific scalar practices that recast

conditions at the microscale; creating Empire required learning about how to use scalecraft.

So far I have referred to top-down uses of scalecraft: cases of national or colonial governments altering the sociospatial conditions in specific sites. But scalar practices can be bottom-up, too, and can entail looking to multiple sites; the craft in working with scale is not just about states affecting 'their' territories. In this regard, therefore, scalecraft is in the toolkit or handbag of a much wider array of agents than is statecraft.

Consider here Ong's (2007) contribution to our understanding of neoliberalism, specifically her book on what she defines as the "neo-liberal exception" in the Asian Pacific region. One of her explorations concerns a set of actors that tend to be ignored in more Atlantic-centred analyses: an elite group of ethnic Chinese managers and entrepreneurs. She discusses how they skilfully negotiate the risks inherent in volatile and rapidly changing transpacific trade networks. Her subjects exert "lateral influence" across multiple "political domains" (Ong, 2007, page 124) and manipulate and in turn benefit from the way neoliberalism nestles within the uneven geography of labour regimes and citizenship systems. In so doing, ethnic Chinese entrepreneurs, managers, and technologists practise what she defines as 'latitudinal citizenship', that is, a form of citizenship which grants

rights and possibilities and which offers freedoms and opportunities to exploit workforces and accumulate wealth in innovative ways in multiple sites. In a space -time context of precarity and volatility, these beneficiaries of neo-liberalization negotiate societal change by crafting out niches in multiple sites and by exploiting the unevenness of citizenship systems.

Ong calls attention here to a matter that has considerable relevance to geographers: citizenship-its uneven geography, and messiness. Thus, and for example, at the same time as Ong highlights how some ethnic Chinese managers and entrepreneurs exercise latitudinal citizenship, she also profiles the labour system through which Filipino and Indonesian women subsidize the Singaporean economy. In contrast to Chinese entrepreneurs, who benefit from citizenship systems, Filipino and Indonesian women lack citizenship rights in their place of work and have almost meaningless citizenship rights in their place of origin. A critical lesson from Ong's work is that practising (or lacking) a particular type of citizenship presents opportunities for some individuals to negotiate neoliberalization processes and the changing place of the individual in society. Citizenship is not simply a set of rights, something given or 'owned': it is, rather, something that can be performed, manipulated, and exploited in different contexts.

Besides Ong's case study, there are other examples of individuals practising or performing citizenship. Also in the Pacific region, for example, there is the case of 'astronaut families', in which ethnic Chinese parents live and work in Hong Kong whilst their children are educated in Vancouver (Waters, 2003). Such 'flexible' practices take into account the risk of political instability or economic shifts such that a changing context does not prove disastrous. Wealthy entrepreneurs, investors, or sports stars practise a latitudinal form of citizenship and exploit the uneven geography of taxation systems by 'earning' or accumulating wealth in one economy but paying low rates of tax in another. The notion that citizenship is practised underpins purposeful attempts by social movement activists to work with, rather than against, the state in a form of cooperative, rather than conflictive, politics (Alvarez, 1998; see also Ettlinger, 2007a), although it is worth noting that citizenship can be practised with respect to a particular political domain at the scale of the city or the nation-state as well as across political boundaries.

A focus on differentiated and messy geographies of citizenship can provide insights into how human actors negotiate (or experience) societal change. And these sorts of practices are especially relevant to any discussion about scale because they demonstrate that some individuals can manipulate and take advantage of the scalar landscape between bodies, neighbourhoods, cities, and

nation-states. What Ong also alerts us to is the scope which Chinese entrepreneurs have purposefully to diminish the influence of actors at certain geographic scales, such as employees in specific workplaces in California, as well as to appeal for support at other scales, such as by lobbying Congress for H-1B work visas. Chinese capitalists practise a form of bottom-up scale-craft that looks simultaneously at multiple sites and manipulates conditions to suit their needs.

Like statecraft, or indeed witchcraft, then, the notion of scalecraft implies a degree of conjuring, of drawing upon available resources and creating reactions that have a decidedly hybrid character. Ong's work highlights practices that evoke the concept of scalecraft because her subjects learn from mistakes and adapt their strategies; any craft needs this process of failure and improvement. Scalecraft can be viewed here as a highly spatial technology used to deliver specific results. Ong's subjects demonstrate the capacity to act at and exploit scales of action as a mechanism to ameliorate against threats, or to take advantage of opportunities amidst a space -time of volatility, uncertainty, and precarity.

So scalecraft requires 'workshops'-spaces and places for 'rolling out' scalar practices-and necessarily entails failure, learning, and adaptation. But, as in all crafts, scalecraft also entails innovation. An especially clear way to envision the

innovative side of scalecraft is via the Schumpeterian term 'creative destruction', which Tickell and Peck (2003) have used to improve how we understand 'neoliberalism'. The notion of roll-out (creative) and roll-back (destructive) neoliberalism points towards the morphing, evolving, and grafting character of the project, as well as its treacherous, uncaring, and ambitious side. To borrow from Latour (2005), its destructive side is about disassembling, whilst its creative side is about reassembling disparate forces, players, and entities into a new assemblage which pulls together players in "centres of discursive production", "ideological heartlands", as well as "frontiers of extension and mediation" (Tickell and Peck, 2003, page 164). Thus the neoliberal project has been advanced by demolition crews, gangsters, and thieves and by flexible and adaptable innovators, agitators, and artisans; it has been supported by a powerful 'creative class' promoting a story embraced by a highly diverse audience.

Part of the skill of neoliberalism's supporters has been to draw attention away from its underlying objective-to reassert class power and 'free' capitalist firms and the wealthy from progressive taxation or overly ambitious redistributive states: to increase material inequality. This skilful fashioning of sociospatial conditions has required selling a wide range of messages tailored to fit particular audiences: so, depending on the place or time, it is modern, British, American Islamic, pro-women, antidiscrimination, pro-economic-growth, anti-stagnation, ambitious,

entrepreneurial, smart, and so on. Neoliberal protagonists and their messages have skilfully found allies within capitalist states (Harvey, 2005).

Thus, creating and sustaining the neoliberal assemblage has involved exploratory, hence experimental and adaptable, "neoliberal forms of statecraft" (Tickell and Peck, 2003, page 179; my emphasis). Statecraft, then, but also scalecraft, particularly because neoliberalization has entailed rescaling social and spatial life in diverse ways using innovative learned, practised, skilled, and fundamentally political techniques and technologies. State powers, for example, have been rescaled, often away from the national state and towards new institutions and organizations which seek to coordinate financial markets or trade and to promote a neoliberal-style agenda almost regardless of what specific national governments would like. A prominent feature on this neoliberal landscape is the towering presence of transnational corporations. Their upscaled activities reflect the experiences they have had of working with, taking advantage of, or applying pressure on national governments: they have rescaled their production networks such that many now stretch over and through multiple states and have a degree of reach and connectedness that few preglobalization (or pre-neoliberalization) entities could manage. Their spatial power gives them leverage. But transnational corporations also have liabilities, such as embeddedness within particular

markets, reliance upon specific regulatory power, or indeed contracts from certain territorial states. Spatial power, then, but not unfettered.

Other examples of scalecraft amidst neoliberalism include scalar discourses which stress the vulnerability of the national state to 'international competition' or 'globalization', which in turn is supposed to justify dismantling hard-fought-for welfare states or legislation that protects trade unions. Scalar discourses accompany neoliberal-style rolling back and rolling out. As such, the destructive-disassembling/creative -reassembling moments of the advance of neoliberalism have had to entail scalar practices: rescaling as well as scale jumping; TNCs up-scaling to exert pressure on national governments; or new scalar discourses about the inevitability of market-ruled life amidst globalization. The creative, reassembling, and innovative dimensions of the neoliberal project speak to the craft that has been involved and developed.

Resistance to the neoliberal project also entails scalecraft. "Scale is", as Leitner and Miller (2007, page 121) point out, "one important dimension of strategies of social action and is the subject of intense debate among many social movements." A crucial question facing movements opposing neoliberalization-and a question geographers have been well positioned to address -is "[w]hat is the most effective scale for organizing? Quite often the conclusion reached is to pursue a

coordinated multi-scalar politics to effectively respond to the shifting politics of neoliberalism." More broadly, a challenge facing geographers is "in understanding the articulation of diverse spatialities and, in turn, what this means for more effective emancipatory politics" (page 121). I argue that scale-craft is integral to the working out of these 'diverse spatialities', particularly because emancipatory politics often demands the skilful rescaling of social life or the deployment of a scalar discourse about the local or the global. Arguably, learning scalecraft is a fundamental dimension of emancipatory politics.

Scalecraft: only a partial solution

I have presented materials on Franco's Spain, colonial Korea, Chinese entrepreneurs in the US -Asian Pacific, and the modern-day global political economy to propose that we can discern numerous examples of scalar practices which evoke skill, aptitude, experimentation, learning, experience, and innovation. The examples indicate that scalecraft has numerous elements. The case of Franco's Spain demonstrates that scalar practices can be simultaneously material and discursive. Colonial Korea draws attention to the top-down and site-specific focus of scalar practices, and the case of Chinese entrepreneurs indicates that it can be more bottom-up and involve multiple sites at the same time. The case of the neoliberal assemblage and its advance draws attention to the centrality of politically charged actions by diverse actors that draw upon a wide range of

experiences to rescale social and spatial life. Producing a scale of action, or using a scalar discourse, is far from straightforward. Skills are involved. There is a craft. Lessons are learned and practices improved, which means there is a desire for perfection among those who pursue scalar practices.

But a crucial caveat is needed here: I want to suggest that the craft of scalar practices can never ensure complete success. Whereas a skilfully made violin will get the job done, scalecraft is always contingent and experimental. Scalecraft is for those who practise it is only ever a partial solution to the problems posed by wider uneven, intersecting geographies. Jessop's view of governance provides some clues here. He notes that governance is prone to fail, partly because of its complex nature, but also because of interactions with unexpected objects, features, or events (1998, page 43; 2005, page 228). In other words, many unanticipated, sometimes chaotic, always intersecting, and uneven geographies get in the way of governance. Likewise, unexpected geographies get in the way of scalecraft. To demonstrate this point in some more detail, I now turn to an example from some research I have conducted in rural South Africa.

Crafting a new laager

At issue here is the response of some white commercial farmers to South Africa's much-publicised 'farm attacks', which in the KwaZulu-Natal case have been

vividly described in Jonny Steinberg's (2002) Midlands. Precise figures about these sorts of attacks vary considerably, but organizations such as the Transvaal Agricultural Union claim that up to 1700 white farmers have been killed since 1994. Of course, it has to be noted that the media profile given to farm attacks dwarfs the degree to which persistent white-on-black violence in rural areas is reported (Human Rights Commission, 2003); and the attacks occur against the backdrop of a more general upsurge in violent crime across South Africa. But 1700 deaths is still a large number, and for the white farmers, the numbers are so stark because violence against white farmers had been utterly unimaginable until the end of apartheid-which is obviously a crucial part of the context here.

Also central to understanding so-called farm attacks is the South African government's stuttering land-reform programme, which promised but has largely failed to deliver land to, and improvements in the lives of, black South Africans in the 'white countryside' and in the country's former 'homelands' (Lahiff, 2007). Land reform has introduced a new level of complexity to many parts of rural South Africa. For example, restitution, which is one strand of the land-reform programme, seeks to restore land rights to individuals or communities who have suffered forced dispossession since 1913. In some areas of the country, white farmers have been under pressure to make way for restitution by agreeing to sell their farms (Fraser, 2007). Some of that pressure is political; but some farmers

suggest that attacks have been orchestrated by the government to add to that pressure.

Thus, in response to fears about farm attacks and actual incidents that have occurred (for example, during the time I conducted research in South Africa, one farmer I had interviewed was killed at the entrance to his farm), some white farmers in the 'Plaasvaal' (not the real name) area of South Africa have run monthly 'farm-security weekends'. I attended and participated in one such event as part of a separate research project I conducted in late 2004; here, I briefly describe what happened.

The majority of instructors were men, but most participants were women, including farmers' wives, partners, or daughters, and other female farmers or farm workers. All of the participants, except for one Asian man, were white. We sat on the first night in a hall and listened to Stephan (not his real name-I have changed all names), a well-built and imposing former security service officer, who provided figures on the number of farm attacks. One statistic claimed that, on a per capita basis, more white farmers were killed on a yearly basis in South Africa than US soldiers in Iraq. He described what happens during farm attacks: men were shot in the head and back; women were raped; dogs were killed. The attackers were sometimes looking for weapons; sometimes nothing was stolen. It

was not clear, Stephan said, whether the state could be absolved of any responsibility; certainly, he argued, the state had done little to prevent the attacks and provided an inefficient level of protection to white farmers. The only option for white farmers, he argued, was for them to work together: to operate farm-security patrols; to learn how to defend property; what to look for prior to an attack; how to use all sorts of weapons. As such, the organizers aimed to train all participants in the use of a wide range of weapons, including revolvers, pistols, shotguns, and even AK47s.

The first firing practice began at a firing range elsewhere on the farm on the Saturday morning. I stood next to a woman in my group waiting to fire the first shot. I asked her how she felt. She said she "hated guns" and didn't want to be there; but her neighbours had been attacked and she wanted to feel more secure. The firing range was intended to build our confidence in using a weapon. The subsequent stages were about learning how to use weapons under intense pressure. We moved to a hostage scenario: 50 yards from the firing range was a mock house (actually, just tarpaulin tied between poles to mimic the spatial layout of a house, with rooms, corners, and the necessary angles around which we were to sweep in search of the hostage and the hostage taker). We had to sweep through the house and fire live rounds at targets without hitting the hostages. Then, in the final stage, and with a passenger in a car, we had to drive

towards a target and, in second gear travelling at about 15 mph, lean back almost into the lap of the passenger, fire two rounds, drive to the next target, stop the bakkie (pick-up truck) and fire two more rounds, before moving up into first gear again, pass the third target and fire two final rounds. Jean explained the purpose of the final stage.

Numerous attacks happen when you're in your bakkie and coming home to your farm from town or from church. You slow down from the main road and turn left onto your property. As you slow down, you see three attackers come at you. You are going to have to fire at and hit them from your moving vehicle. Your weapon should be loaded and the safety catch should be off." The scenario tried to recreate this situation.

I argue that the weekend was intended to provide a form of 'community service' to a group of people genuinely alarmed by violent attacks on white farmers. But the weekend was definitely also part of the organizers' attempt to expand the number of volunteers in farm watch patrol forces. These patrols, run by white farmers, monitor and seek to protect farms, especially at night. The patrols regularly mobilize up to ten bakkies to block roads and conduct stop-and-searches. Ostensibly, their concern is stopping attacks or catching perpetrators. But these actions have deeper significance. A key feature of Afrikaner history is a

mentality of protecting the laager (circle of wagons) of God's people (Akenson, 1992). Apartheid reflected this laager mentality insofar as it was underpinned by an ideology that sought to defend Afrikaner nationalism from African nationalist and communist attacks. Apartheid is now dead. But events such as the farm-security weekend, and the farmers' nightly patrols, reflect Afrikaner farmers' contemporary sense that they are still under attack; that they still need to be on the defensive. Their actions are, therefore, suggestive of a new laager mentality. And scalecraft, I now suggest, is part of the farmers' repertoire of action.

White farmers' scalecraft

In the following discussion I seek to demonstrate that the farmers are engaging in scalar practices. Discursive scalar practices are one aspect here. My invitation to the farm security weekend reflected the organizers' enthusiasm for alerting a more international audience to their 'plight'. Organizers of other events have invited journalists from the international media and in 2006, for instance, were portrayed as defenders of South Africa amidst a 'wave' of Zimbabwean migrants. Like Franco's efforts to position Spain within a wider network of interests and Asian capitalists' appeals to Congress regarding H-1B work visas, the farmers engaged in scalar practices which sought to communicate the significance of their particular experience to a wider audience. But another crucial element in the farmers' calculations was the South African state's vulnerability to currency

fluctuations, investor panic, and the ANC government's reputation (cf Klein, 2007, pages 194 -217). Like other conservative Afrikaner groups, the farm-weekend organizers' media strategy was underpinned by a desire to embarrass the South African state and exploit parallels with the African basket-case story, which remains only too popular among the Western media. This discursive dimension of the farmers' activities further demonstrates that scalecraft is by no means only a material practice. Viewed abstractly, the farmers' actions, which project economic power, protect private property, and undermine the state, resemble the neoliberalizing project (Harvey, 2005; Peck and Tickell, 2007). And, like the neoliberalizing project, scalecraft is germane to their success.

Interwoven with these discursive elements were the more material dimensions of the farmers' activities. We can discern the craft of scalar practices here, too. Whereas an individual farmer, for example, can patrol and monitor his/her farm(s) (albeit with limited success), the farm patrols operate with the assumption that larger groups can patrol and respond to threats over much wider areas. Area, extent, scope, and reach are central matters here. The geographic scale of their operations is of fundamental importance. A patrol which covers all farms in a particular area entails a much wider operation than one which focuses only on, say, Farms One, Two, or Three in figure 1 (note that this map is purely schematic, and is not based on a real place in South Africa). The farmers have

upscaled their defences by fashioning an 'organic' scale of governance which covers all farms and patrols all connecting roads and farm entrances. Upon an alarm being raised by telephone or radio, farmers working during the day or patrolling at night will speed into action, converge on particular sites, block roads, and detain suspects. This new 'mobile laager' seeks to construct a protective fence around all affiliated farms. The patrols occur within, along, and across a novel, assembled scale of action which the farmers skilfully craft and re-craft each night. It is transient and temporary, as well as mobile and adaptable to different topographical conditions.

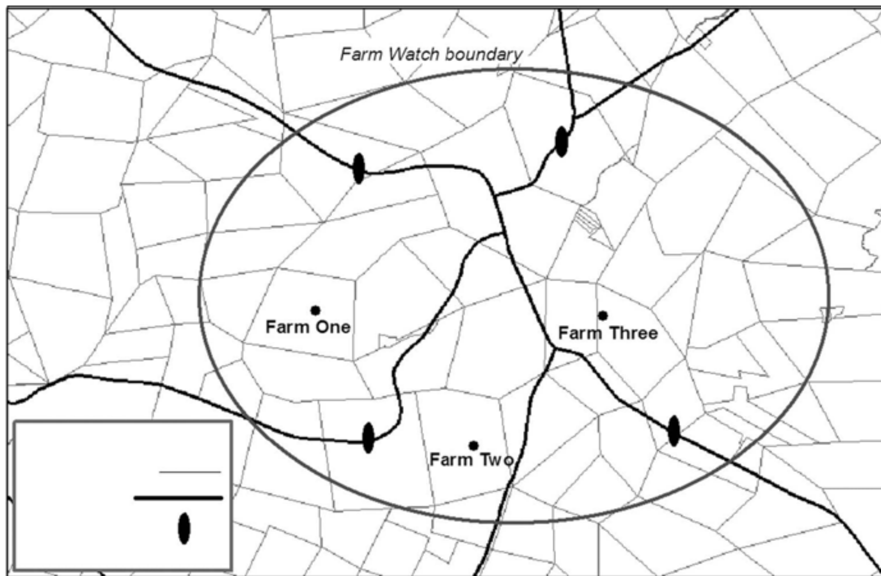

Figure 1. A farm-patrol geography.

Like other examples of scalecraft, the farmers encounter limits and contradictions; failures occur. As in Henry's and Ong's cases mentioned earlier, space and time are complicating factors when fashioning scales of action. In the case of rural South Africa, farm dwellings can be entered by road, or by foot; responding to attacks is harder on a Sunday because farmers are at church or away for the weekend; each individual landowner or farmer has a particular history of relations stretching back a month, or forty years-hence, anticipating possible revenge attacks is far from easy; noticing surveillance of white-owned farms is harder at night than during the day. In short, the explicit goal of white farmers' scalecraft-to prevent attacks and to respond to them promptly; to save lives-is hard to attain. Lessons about how, where, or when to patrol are learned 'on the job'. Failures occur. Attacks happen. Members of the white farming community are killed.

And this leads to a general point: that scalecraft, like statecraft, can only ever be a partial solution to specific social problems. A useful way of grasping this is to imagine, as Massey (2005) does, the "throwntogetherness" of space and place. This notion refers to the "happenstance juxtapositioning" and the "coming together of trajectories" (page 141) as chaotic and ordered processes and events and relations combine to produce space. Scalecraft, I argue, is one way of intervening amidst all that uncertainty: a way of building some sort of a scalar fix

(Brenner, 2001). But unlike the craft of producing violins the craft of scalar practices cannot result in certainty and bounded closure. As has been noted in relational theories of space and spatiality, and as intrusions onto apparently well-patrolled farms highlight, the throwntogetherness of space and place disrupts attempts at coherence and order.

To conclude this discussion, there is clearly a strong sense of realism among white farmers. Many participants in these patrols no doubt lament the demise of the national laager-that is, the apartheid state-and would like to see Afrikaners move their security up to that scale once again. But their desired scale of operation is unachievable, whilst the achievable scale is, from their point of view, far from desirable. The result is a pragmatic, conjured scale of operation: beyond the individual farm, of course, and at least up to a group of between ten and thirty farms, if not towards a much wider area. There is a strong degree of scalecraft here, too: operating with and trying to understand the limits of the scale at which they operate, volunteer farmers involved with these farm patrols have been forced to learn their craft.

Conclusion

I have sought to build on and develop how geographers understand scalar practices. I have explored the craft of these practices by introducing the concept

of scalecraft, which is the often highly skilful, yet sometimes unsuccessful, fashioning and refashioning of geographic scale to suit particular needs. I also have sought to develop how we think about this craft. I have used examples from the literature as well as primary materials to note that scalecraft is similar to other crafts insofar as it requires 'workshops', learning, and innovation. The craft of working with scale draws upon experiences and yields innovations. It can include efforts intended to recast social conditions at particular geographic scales towards achieving a particular aim or set of aims which have narrower or broader scalar horizons, or efforts to upscale, downscale, or otherwise rescale social life, either materially or discursively (and often simultaneously). And in the lattermost part of the paper I also have been at pains to stress a crucial point: that scalecraft can only ever be a partial solution; intersecting, uneven geographies-the "throwntogetherness" of space (Massey, 2005)-mean that scalecraft can be practised but never perfected. Some attempts fail.

Specifying when and where scalecraft fails or succeeds is not the issue here-besides, the answer has to be that it depends on the circumstances, intentions, or array of forces at play-but one implication of my contribution is that research could ask pertinent questions about how and why specific projects under certain conditions fail or do not. I have drawn attention to inventive efforts intended to recast social conditions at particular geographic scales towards achieving a

particular aim or set of aims which have narrower or broader scalar horizons. The politics caught up in these diverse examples of scalecraft are expansive and exciting.

I suggest that the intellectual point of thinking about scalecraft is to understand more rigorously how social actors draw upon and produce social space; clearly, scale is central in this understanding of spatiality. The concept therefore connects with research agendas which seek to understand why some bureaucrats, say, are better scalar practitioners than others, or why some efforts to jump scales succeed whereas others fail. Recognizing the skill, and indeed the craft, at work in scalar practices is a necessary step to understanding why scalar discourses, or particular institutional fixes, fail or succeed.

How scalecraft is played out in a wider range of contexts is another question for further research. I have not considered the social movements literature in any detail in this paper, but scalecraft should have applicability to scholars in this area. One question, for example, is that of how social movement activists learn from each other's successful and failed scalar practices. Work on governance and the scale division of the state is another immediately obvious area for further work on the craft of scalar practices. The success, or not, of scalar practices is obviously an issue for scholars interested in devolution or attempts to rescale

government agencies or responsibilities. I argue that scalecraft introduces to this area of the literature the need for research that examines how scalar practitioners develop specific skill sets, technical competencies, and overcome sociopolitical dilemmas regarding the sorts of scalar practices, fixes, or reconfigurations that appear to be so widespread in the contemporary period.

Some caution is needed here, however. I have introduced a concept of scalecraft which entails bottom-up, multiple-site-focused, as well as top-down, site-specific attempts at fashioning geographic scales of action-but these actions inevitably intersect with other forms of spatiality. Advocating attention to scalecraft does not mean reducing all forms of spatiality to scale. In each of the examples discussed above, for example, issues arise regarding territory, territoriality, place, and networks. This point is significant for pursuing a richer understanding of scalecraft in diverse arenas and literatures. I have argued that scalecraft needs to be viewed as a key skill which actors learn as they engage in scalar practices and as they intervene in and produce social space. Knowledge of how actors learn the craft of other geographic practices might be one way to shed further light on scalecraft, and vice versa.

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